



SEQUENCE LISTING

<110> Alexion Pharmaceuticals, Inc.
Bowdish, Katherine S.
McWhirter, John

<120> POLYPEPTIDES AND ANTIBODIES DERIVED FROM CHRONIC LYMPHOCYTIC
LEUKEMIA CELLS AND USES THEREOF

<130> 60 CIP II (1087-43 CIP II)

<140> US 10/736,188

<141> 2003-12-15

<150> US 10/379,151

<151> 2003-03-04

<150> PCT/US01/47931

<151> 2001-12-10

<150> US 60/254,113

<151> 2000-12-08

<160> 34

<170> PatentIn version 3.2

<210> 1

<211> 74

<212> PRT

<213> artificial sequence

<220>

<223> Cloned Antibody CDR Sequences

<400> 1

Thr Leu Ser Thr Gly Tyr Ser Val Gly Ser Tyr Val Ile Ala His Ser
1 5 10 15

Glu Glu Ala Lys His Gln Gly Ser Ala Thr Ala His Gly Ser Gly Ser
20 25 30

Ser Phe His Val Val Asn Tyr Ala Met Thr Ile Ile Ser Ser Asn Gly
35 40 45

Gly Ala Asp Tyr Ala Ser Trp Ala Lys Asp Asp Glu Gly Tyr Asp Asp
50 55 60

Tyr Gly Asp Tyr Met Gly Tyr Phe Thr Leu
65 70

<210> 2
<211> 63
<212> PRT
<213> artificial sequence

<220>
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<400> 2

Gln Ala Ser Glu Ser Ile Arg Asn Tyr Leu Ala Gly Ala Ser Asn Leu
1 5 10 15

Glu Ser Gln Ser Gly Asp Tyr Ser Ala Gly Leu Thr Ser Tyr Gly Leu
20 25 30

Ser Tyr Phe Asp Pro Val Phe Gly Asn Ile Tyr Tyr Ala Thr Trp Val
35 40 45

Asp Asp Arg Ile Tyr Val Ser Ser Val Gly Tyr Ala Phe Asn Leu
50 55 60

<210> 3
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<400> 3

Gln Ala Ser Glu Ser Ile Ser Asn Trp Leu Ala Arg Ala Ser Thr Leu
1 5 10 15

Ala Ser Gln Ser Gly Tyr Tyr Ser Ala Gly Val Thr Ser Asn Ala Met
20 25 30

Gly Ile Ile Ser Ser Ser Gly Gly Thr Tyr Tyr Ala Ser Trp Ala Lys
35 40 45

Asp Trp Ile Ala Ala Gly Lys Ser Tyr Gly Leu Asp Leu
50 55 60

<210> 4
<211> 64
<212> PRT
<213> artificial sequence

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<400> 4

Gln Ala Ser Gln Asn Ile Tyr Ser Asn Leu Ala Leu Ala Phe Thr Leu
1 5 10 15

Ala Ser Gln Gly Gly Asp Tyr Ser Ser Ser Ser Tyr Gly Tyr Gly
20 25 30

Ser Ser Asp Trp Ile Cys Cys Ile Tyr Thr Gly Ser Ser Ser Thr
35 40 45

Trp Tyr Ala Ser Trp Ala Lys Arg Tyr Thr Gly Asp Asn Gly Asn Leu
50 55 60

<210> 5

<211> 62

<212> PRT

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<400> 5

Gln Ala Ser Gln Ser Val Asn Asn Leu Leu Ala Gly Ala Ser Asn Leu
1 5 10 15

Glu Ser Gln Ser Gly Tyr Tyr Ser Pro Gly Val Thr Ser Asp Val Ile
20 25 30

Ser Tyr Ile Tyr Thr Gly Asp Gly Ser Thr Asp Tyr Ala Ser Trp Val
35 40 45

Asn Asp Ala Ala Tyr Ala Gly Tyr Gly Trp Ile Phe Asn Leu
50 55 60

<210> 6

<211> 58

<212> PRT

<213> artificial sequence

<220>

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<400> 6

Leu Ala Ser Glu Asn Val Tyr Ser Ala Val Ala Gly Ala Ser Asp Leu
 1 5 10 15

Glu Ser Gln Gly Tyr Ser Ser Tyr Pro Pro Thr Thr Tyr Ala Met Gly
 20 25 30

Ser Ile Tyr Ala Ser Arg Ser Pro Tyr Tyr Ala Ser Trp Ala Lys Gly
 35 40 45

Asp Ala Gly Ser Ile Pro Tyr Phe Lys Leu
 50 55

<210> 7
 <211> 57
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<220>
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<400> 7

Gln Ala Ser Gln Ser Val Asn Asn Leu Leu Ala Gly Ala Ser Asn Leu
 1 5 10 15

Glu Ser Ala Gly Tyr Lys Ser Ser Ser Thr Asp Gly Ile Ala Ser Asn
 20 25 30

Ala Met Thr Thr Ile Ile Tyr Gly Asp Asn Thr Tyr Tyr Ala Ser Trp
 35 40 45

Ala Lys Gly Asn Val Phe Ser Asp Leu
 50 55

<210> 8
 <211> 58
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<400> 8

Gln Ala Ser Gln Ser Ile Ser Asn Leu Leu Ala Gly Ala Ser Asn Leu
 1 5 10 15

Glu Ser Gln Ser Gly Tyr Tyr Ser Ala Gly His Leu Thr Asp Phe Ala

20

25

30

Met Ser Val Val Tyr Ala Gly Thr Arg Gly Asp Thr Tyr Tyr Ala Asn
 35 40 45

Trp Ala Lys Gly Leu Thr Tyr Tyr Pro Leu
 50 55

<210> 9

<211> 70

<212> PRT

<213> artificial sequence

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<400> 9

Thr Leu Ser Thr Gly Tyr Ser Val Gly Glu Tyr Pro Val Val His Thr
 1 5 10 15

Asp Asp Ile Lys His Gln Gly Ser Ala Ile Ala His Gly Thr Glu Ser
 20 25 30

Ser Phe His Val Val Ser Tyr Gly Met Asn Tyr Ile Asp Pro Asp Tyr
 35 40 45

Gly Ser Thr Tyr Tyr Ala Ser Trp Val Asn Gly Ala Tyr Ser Gly Tyr
 50 55 60

Pro Ser Tyr Phe Asn Leu
 65 70

<210> 10

<211> 62

<212> PRT

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<400> 10

Thr Leu Arg Thr Gly Tyr Ser Val Gly Glu Tyr Pro Leu Val His Thr
 1 5 10 15

Asp Asp Ile Lys His Gln Gly Ser Ala Thr Gly His Gly Ser Gly Ser
 20 25 30

Ser Ala Gly Val Val Ser Asn Ala Met Ser Ile Thr Tyr Pro Ser Gly
 35 40 45

Asn Val Tyr Tyr Ala Ser Trp Ala Lys Gly Phe Phe Asn Leu
 50 55 60

<210> 11
 <211> 57
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<400> 11

Leu Ala Ser Glu Asp Ile Tyr Ser Gly Leu Ser Gly Ala Ser Asn Leu
 1 5 10 15

Glu Ser Leu Gly Gly Tyr Pro Tyr Ser Ser Thr Gly Thr Ala Thr Asn
 20 25 30

Ala Ile Ser Tyr Ser Ser Tyr Gly Asn Asn Ala His Tyr Thr Asn Trp
 35 40 45

Ala Lys Gly Asn Ala Tyr Ser Asp Leu
 50 55

<210> 12
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 <212> PRT
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<400> 12

Gln Ala Ser Gln Ser Val Ser Asn Leu Leu Ala Gly Ala Ser Asn Leu
 1 5 10 15

Glu Ser Gln Ser Gly Trp Tyr Ser Ala Gly Ala Leu Thr Ser Asn Ala
 20 25 30

Met Ser Ile Ile Ile Gly Ser Gly Thr Thr Tyr Tyr Ala Asn Trp Ala
 35 40 45

Lys Asp Gln Pro Ile Ile Tyr Gly Ala Tyr Gly Asp Tyr Gly Leu Ala
 50 55 60

Thr Gly Thr Arg Leu Asp Leu
 65 70

<210> 13
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 <212> PRT
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<400> 13

Gln Ala Ser Gln Ser Val Ser Asn Leu Leu Ala Gly Ala Ser Asn Leu
 1 5 10 15

Glu Ser Gln Ser Gly Tyr Tyr Ser Ala Gly Leu Thr Ser Asn Ala Ile
 20 25 30

Ser Ile Ile Val Gly Ser Gly Thr Thr Tyr Tyr Ala Asp Trp Ala Lys
 35 40 45

Asp Gln Pro Ile Thr Tyr Ala Gly Tyr Gly Tyr Ala Thr Gly Thr Arg
 50 55 60

Leu Asp Leu
 65

<210> 14
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 <212> PRT
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<220>
 <223> Cloned Antibody CDR Sequences

<400> 14

Gln Ala Ser Gln Ser Val Asn Asn Leu Leu Ala Gly Ala Ser Asn Leu
 1 5 10 15

Glu Ser Gln Ser Gly Tyr Tyr Ser Ala Gly Leu Thr Thr Asn Ala Met
 20 25 30

Ser Thr Ile Thr Tyr Gly Thr Asn Ala Tyr Tyr Ala Ser Trp Ala Lys
 35 40 45

Gly Asn Thr Tyr Ser Asp Leu
 50 55

<210> 15
 <211> 65
 <212> PRT
 <213> artificial sequence

<220>
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<400> 15

Gln Ser Ser Gln Ser Ile Ala Gly Ala Tyr Leu Ser Leu Ala Ser Lys
 1 5 10 15

Leu Ala Ser Ala Ala Gln Tyr Ser Gly Asn Ile Tyr Thr Ser Ser Tyr
 20 25 30

Trp Ile Cys Cys Ile Tyr Thr Gly Ser Asn Gly Ser Thr Tyr Tyr Ala
 35 40 45

Ser Trp Ala Lys Ala Tyr Ile Tyr Tyr Gly Gly Tyr Gly Phe Phe Asp
 50 55 60

Leu
 65

<210> 16
 <211> 57
 <212> PRT
 <213> artificial sequence

<220>
 <223> Cloned Antibody CDR Sequences

<400> 16

Leu Ala Ser Glu Asn Val Tyr Gly Ala Val Ala Gly Ala Ser Asn Leu
 1 5 10 15

Glu Ser Gln Gly Tyr Ser Ser Tyr Pro Thr Asn Tyr Gly Val Asn Tyr
 20 25 30

Ile Asp Pro Val Phe Gly Ser Thr Tyr Tyr Ala Ser Trp Val Asn Glu

35

40

45

Ala Ser Phe Tyr Tyr Gly Met Asp Leu
50 55

<210> 17

<211> 63

<212> PRT

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<221> MISC_FEATURE

<222> (60)..(63)

<223> Xaa is unknown amino acid

<400> 17

Gln Ala Ser Glu Ser Ile Arg Asn Tyr Leu Ala Gly Ala Ser Asn Leu
1 5 10 15

Glu Ser Gln Ser Gly Tyr Tyr Ser Ala Gly Leu Thr Thr Tyr Gly Val
20 25 30

Ser Tyr Asn Asp Pro Ile Phe Gly Asn Thr Tyr Tyr Ala Thr Trp Val
35 40 45

Asn Asp Arg Ala Tyr Ala Ser Ser Ser Gly Tyr Xaa Xaa Xaa Xaa
50 55 60

<210> 18

<211> 61

<212> PRT

<213> artificial sequence

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<400> 18

Gln Ala Ser Glu Ser Ile Ser Asn Tyr Leu Ala Gly Ala Ser Asn Leu
1 5 10 15

Glu Ser Gln Ser Gly Tyr Tyr Ser Ala Gly Leu Thr Thr Asn Ala Met
20 25 30

Gly Ile Ile Ser Ser Ser Gly Ser Thr Tyr Tyr Ala Ser Trp Ala Lys
 35 40 45

Asp Trp Ile Ala Ala Gly Lys Ser Tyr Gly Leu Asp Leu
 50 55 60

<210> 19
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<220>
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<400> 19

Gln Ala Ser Glu Ser Ile Asn Asn Tyr Leu Ala Gly Ala Ser Asn Leu
 1 5 10 15

Glu Ser Gln Ser Gly Tyr Tyr Ser Gly Gly Ala Thr Ser Asp Val Ile
 20 25 30

Ser Tyr Ile Tyr Thr Gly Asp Gly Ser Thr Asp Tyr Ala Ser Trp Val
 35 40 45

Asn Asp Ala Ala Tyr Ala Gly Tyr Gly Trp Ile Phe Asn Leu
 50 55 60

<210> 20
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 <212> PRT
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<220>
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<400> 20

Leu Ala Ser Glu Asn Val Tyr Gly Ala Val Ala Gly Ala Ser Asn Leu
 1 5 10 15

Glu Ser Gln Gly Tyr Ser Ser Tyr Pro Thr Thr Tyr Ala Met Gly Ser
 20 25 30

Ile Tyr Ala Ser Arg Ser Pro Tyr Tyr Ala Ser Trp Ala Lys Gly Asp
 35 40 45

Ala Gly Ser Ile Pro Tyr Phe Lys Leu

50

55

<210> 21
 <211> 59
 <212> PRT
 <213> artificial sequence

<220>
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<400> 21

Leu Ala Ser Glu Asn Val Ala Ser Thr Val Ser Gly Ala Ser Asn Leu
 1 5 10 15

Glu Ser Leu Gly Gly Phe Gly Tyr Ser Thr Thr Gly Leu Thr Asp Phe
 20 25 30

Ala Met Ser Val Val Tyr Ala Gly Thr Arg Gly Asp Thr Tyr Tyr Ala
 35 40 45

Asn Trp Ala Lys Gly Leu Thr Tyr Tyr Pro Leu
 50 55

<210> 22
 <211> 71
 <212> PRT
 <213> artificial sequence

<220>
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<400> 22

Gln Ala Ser Gln Ser Val Asn Asn Leu Leu Ala Arg Ala Ser Thr Leu
 1 5 10 15

Ala Ser Gln Ser Gly Tyr Tyr Arg Ala Gly Asp Leu Thr Ser Tyr Tyr
 20 25 30

Met Ser Ile Ile Ser Ser Ser Gly Thr Ser Tyr Tyr Ala Thr Trp Ala
 35 40 45

Lys Asp Gln Pro Ile Ile Asp Ala Ala Tyr Gly Asp Tyr Gly Ile Ala
 50 55 60

Thr Gly Thr Arg Leu Asp Leu
 65 70

<210> 23
 <211> 70
 <212> PRT
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<400> 23

Gln Ala Ser Gln Ser Val Ser Asn Leu Leu Ala Gly Ala Ser Asn Leu
 1 5 10 15

Glu Ser Gln Ser Gly Tyr Tyr Ser Ala Gly Leu Thr Ser Tyr Thr Met
 20 25 30

Ser Ile Ile Ser Ser Ser Gly Ser Ala Tyr Tyr Ala Thr Trp Ala Lys
 35 40 45

Asp Gln Pro Ile Ile Thr Thr Asp Tyr Gly Gly Tyr Gly Ile Ala Thr
 50 55 60

Gly Thr Arg Leu Asp Leu
 65 70

<210> 24
 <211> 68
 <212> PRT
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<220>
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<400> 24

Gln Ala Ser Gln Ser Val Ser Asn Leu Leu Ala Gly Ala Ser Asn Leu
 1 5 10 15

Glu Ser Gln Ser Gly Tyr Tyr Ser Ala Gly Ala Leu Thr Ser Asn Ala
 20 25 30

Ile Ser Ile Ile Val Gly Ser Gly Thr Thr Tyr Tyr Ala Asp Trp Ala
 35 40 45

Lys Asp Gln Pro Ile Thr Tyr Ala Gly Tyr Gly Tyr Ala Thr Gly Thr
 50 55 60

Arg Leu Asp Leu
65

<210> 25
<211> 55
<212> PRT
<213> artificial sequence

<220>
<223> Cloned Antibody CDR Sequences

<400> 25

Gln Ala Ser Glu Asp Ile Glu Ser Tyr Leu Ala Gly Ala Ser Asn Leu
1 5 10 15

Glu Ser Gln Ser Asn Ala Trp Ser Val Gly Met Thr Ser Asn Ala Met
20 25 30

Ser Thr Ile Thr Tyr Gly Thr Asn Ala Tyr Tyr Ala Ser Trp Ala Lys
35 40 45

Gly Asn Thr Tyr Ser Asp Leu
50 55

<210> 26
<211> 36
<212> DNA
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<220>
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<400> 26
ggcctctaga cagcctgtgc tgactcagtc gccctc

36

<210> 27
<211> 43
<212> DNA
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<220>
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<400> 27
cgagggggca gccttgggct gacctgtgac ggtcagctgg gtc

43

<210> 28
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<212> DNA
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 <223> primer

 <400> 28
 gaccagctg accgtcacag gtcagcccaa ggctgcccc tcg 43

 <210> 29
 <211> 34
 <212> DNA
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 <220>
 <223> primer

 <400> 29
 tctaattctg agcagcagca gctgatggag tccg 34

 <210> 30
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 <220>
 <223> primer

 <400> 30
 gaccgatggg cccttggtgg aggctgagga gacggtgacc aggggtgc 47

 <210> 31
 <211> 47
 <212> DNA
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 <220>
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 <400> 31
 gcaccctggg caccgtctcc tcagcctcca ccaagggccc atcggtc 47

 <210> 32
 <211> 28
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 <220>
 <223> primer

 <400> 32
 ccactgtcag agctcccggg tagaagtc 28

<210> 33
 <211> 23
 <212> DNA
 <213> artificial sequence

<220>
 <223> primer

<400> 33
 gtcaccgggtt cggggaagta gtc

23

• <210> 34
 <211> 70
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 • <213> artificial sequence

<220>
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<400> 34

Thr Leu Ser Thr Gly Tyr Ser Val Gly Glu Tyr Pro Val Val His Thr
 1 5 10 15

Asp Asp Ile Lys His Gln Gly Ser Ala Ile Ala His Gly Thr Glu Ser
 20 25 30

Ser Phe His Val Val Ser Tyr Gly Met Asn Tyr Ile Asp Pro Asp Tyr
 35 40 45

Gly Ser Thr Tyr Tyr Ala Ser Trp Val Asn Gly Ala Tyr Ser Gly Tyr
 50 55 60

Pro Ser Tyr Phe Asn Leu
 65 70